

What is claimed is:

1. A differential amplifier comprising:

5 a first differential amplifier circuit having a first differential pair and operating based on a common input voltage; and

a second differential amplifier circuit having a second differential pair and operating based on the common input voltage,

10 wherein at least one of the first differential pair and the second differential pair is formed from a pair of transistors having a driving ability difference therebetween.

2. The differential amplifier as defined in claim 1, further comprising:

15 a first current mirror circuit provided in the first differential amplifier circuit and formed from a first transistor of a primary conductive type and a second transistor of the primary conductive type;

20 a second current mirror circuit provided in the second differential amplifier circuit and formed from a first transistor of a secondary conductive type and a second transistor of the secondary conductive type;

25 a third transistor of the primary conductive type which operates based on a first signal from the first differential amplifier; and

a third transistor of the secondary conductive type

connected in series to the third transistor of the primary conductive type and operating based on a second signal from the second differential amplifier circuit,

wherein a voltage between the third transistor of the  
5 primary conductive type and the third transistor of the secondary conductive type is an output voltage.

3. The differential amplifier as defined in claim 2,

wherein the first differential amplifier circuit  
10 includes:

a fourth transistor of the secondary conductive type connected in series to the first transistor of the primary conductive type; and

a fifth transistor of the secondary conductive type  
15 connected in series to the second transistor of the primary conductive type and having a driving ability different from the fourth transistor of the secondary conductive type,

wherein the fourth transistor of the secondary conductive type and the fifth transistor of the secondary conductive type  
20 form the first differential pair.

4. The differential amplifier as defined in claim 3,

wherein a driving ability of the fifth transistor of the secondary conductive type is set to be greater than a driving  
25 ability of the fourth transistor of the secondary conductive type.

5. The differential amplifier as defined in claim 2,

wherein the second differential amplifier circuit includes:

a fourth transistor of the primary conductive type  
5 connected in series to the first transistor of the secondary conductive type; and

a fifth transistor of the primary conductive type  
connected in series to the second transistor of the secondary  
conductive type and having a driving ability different from the  
10 fourth transistor of the primary conductive type,

wherein the fourth transistor of the primary conductive  
type and the fifth transistor of the primary conductive type  
form the second differential pair.

15 6. The differential amplifier as defined in claim 5,

wherein a driving ability of the fifth transistor of the  
primary conductive type is set to be greater than a driving  
ability of the fourth transistor of the primary conductive type.

20 7. A semiconductor device comprising the differential  
amplifier as defined in claim 1.

8. A power supply circuit comprising the differential  
amplifier as defined in claim 1.

25 9. Electronic equipment comprising the power supply circuit  
as defined in claim 8.